

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application. The added portions are underlined and the deleted portions are stricken through.

Claims:

1. (currently amended) In a method for optimizing ~~a portfolio of financial investments in-~~  
vestor's portfolio in order to maximize total return for ~~equivalent for any level of risk~~, which ~~sys-~~  
~~tem method~~ includes assuming certain rates of return for various types of investments in the port-  
folio, the ~~improvements~~ improvement comprising
  - a. defining several accounts within the portfolio, each of which accounts have ~~finan-~~  
~~cial investments~~ assets, each of which ~~financial investment~~ asset in the account being character-  
ized in one or more asset classes, the ~~financial investments~~ assets in a particular asset class hav-  
ing ~~a~~ tax characteristics in common with one another and the ~~financial investments~~ assets in  
each asset class having a market value, a tax basis, an expected effective tax rate upon liquida-  
tion, investment characteristics, including after-tax expected returns and volatility estimates, and  
pre-tax investment constraints, which investment constraints have the effect of applying upper  
and lower limits to a financial value of the ~~financial investments~~ asset class that must be main-  
tained,
  - b. determining the contingent tax on each asset class by calculating the difference  
between the market value of the asset class and its tax basis multiplied by the expected effective  
tax rate upon liquidation,
  - c. determining pre-tax and after-tax constraints on what ~~investments~~ asset classes are  
to be contained in the portfolio ~~as to asset classes~~,
  - d. transforming the pre-tax constraints and pre-tax investment characteristics into a  
set of after-tax constraints and investment characteristics, including after-tax expected returns  
and volatility estimates, and
  - e. adjusting market values of ~~financial assets in each portfolio~~ asset class to reflect  
the effect of the contingent tax on the ~~assets~~ asset class.

2. (previously presented) The method set forth in claim 1 wherein the step of transforming the pre-tax constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics further includes, calculating after-tax returns and after-tax standard deviations for each asset class using corresponding pre-tax returns and pre-tax standard deviations.

3. (Withdrawn) In a method of creating a derived asset class using the characteristics of one or more predefined asset class, the improvement including the steps of

a. determining the pre-tax total return and risk characteristics of the one or more predefined asset classes,

b. calculating the pre-tax total return and risk characteristics of the derived asset class using such pre-tax total return and risk characteristics of the one or more predetermined asset classes,

c. determining the tax characteristics of the one or more predefined asset classes, and

d. calculating the tax characteristics of the derived asset class using the tax characteristics of the predefined asset classes.

4. (Withdrawn) A method of creating a derived asset class comprising providing a standard asset having a predetermined standard deviation, providing a standard deviation multiplier, calculating the standard deviation of the derived asset class by multiplying the predetermined standard deviation of the standard asset class by the standard deviation multiplier and the correlations of returns between the derived asset class and any other arbitrary asset class given by the correlations of returns between the standard asset class and the arbitrary asset class divided by the standard deviation multiplier.

5. (Withdrawn) The method set forth in claim 1 wherein transforming the pre-tax constraints and pre-tax investment characteristics into a set of after-tax constraints is according to the form:

$BL \leq B = \sum a_i * X_i \leq BU$  for  $i = 1$  to  $N$  (number of individual asset classes),

where

$B$  represents a linear constraint specification,

$BL$  represents a value of lower limit on a linear constraint,

$BU$  represents a value of upper limit on a linear constraint,

$X_i$  presents an allocation to each asset class, and

$a_i$  represents a fixed portion of  $X_i$  typically between 0 and 1, usually 0(0%) or 1(100%).

6. (Cancelled)

7. (New) In a method for optimizing an investor's portfolio in order to maximize total expected rate of return for a given level of risk, which method includes assuming certain expected total rates of return for various assets in the portfolio, the improvement comprising:

defining several accounts within the portfolio, each of which accounts have financial investments,

categorizing each asset in the portfolio as being in one or more asset classes and one or more accounts, the assets in a particular asset class and account having tax characteristics in common with one another,

determining for each asset class in an account its market value, a tax basis, an effective tax rate upon liquidation, and other pre-tax and after-tax investment characteristics, including after-tax expected returns, and any pre-tax and after-tax investment constraint to which it may be subject, which investment constraint includes an upper limit and a lower limit on a linear combination of financial values of each asset class within each account,

determining the contingent tax on each asset class within each account by calculating the difference between the market value of the asset class within each account and its tax basis multiplied by its anticipated effective tax rate upon liquidation,

finding the after-tax market value of each asset class in each account by netting the asset class market value and its contingent tax,

transforming the pre-tax investment constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics, including after-tax expected returns and risk measures, and

constructing a portfolio by finding the after-tax market values for each asset class within each account consistent with all after-tax constraints that produce the highest expected after-tax rate of return to the portfolio for a given level of after-tax risk for the portfolio.

8. (New) The method of claim 7 including converting the after-tax market values, after-tax returns, and after-tax constraints to their corresponding pre-tax market values, pre-tax rates of return and pre-tax constraints.

9. (New) The method set forth in claim 7 wherein the step of transforming the pre-tax investment characteristics into a set of after-tax investment characteristics further includes calculating the after-tax standard deviations and after-tax pair-wise correlations of the after-tax rates of return for each asset class within each account using corresponding pre-tax rates of return, the pre-tax standard deviations and pre-tax pair-wise correlations of the pretax rates of return and the tax characteristics of each asset class within each account.

10. (New) The method of claim 9 wherein calculating after-tax standard deviations includes consideration for differing volatilities that may apply to tax characteristics, such as ordinary income and capital gains to assets in the same asset class.

11. (New) The method of claim 9 further including using the after-tax standard deviations and after-tax pair-wise correlations to calculate the level of after-tax risk of the investor's portfolio.

12. (New) The method of claim 9 further including using the after-tax standard deviations that include differing volatilities that may apply to tax characteristics and after-tax pair-wise

correlations and consideration to calculate the level of after-tax risk of the investor's portfolio.